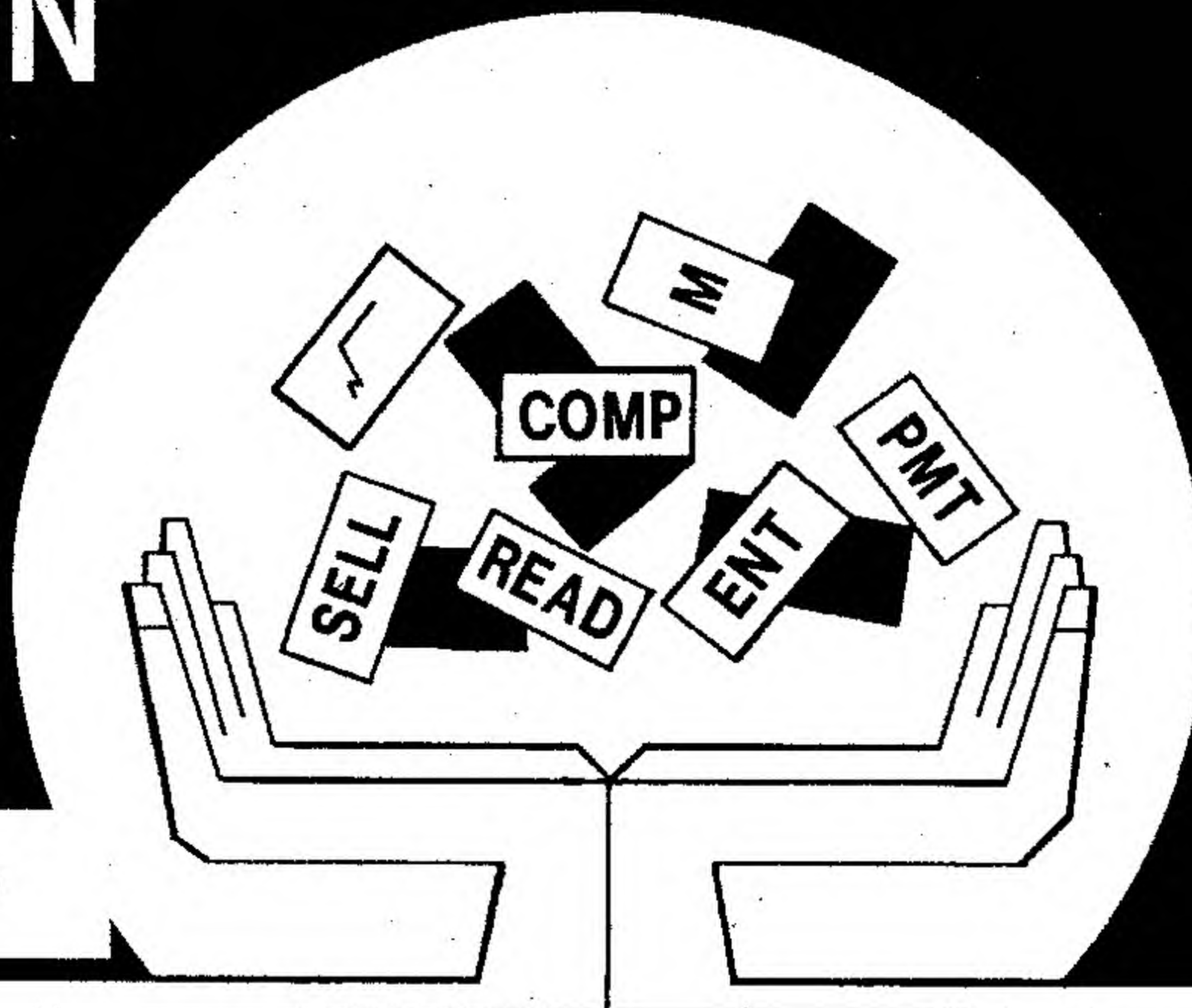


OPERATION MANUAL

FINANCIAL
CALCULATOR

MODEL

2139



**A PASSPORT FOR QUALITY
ELECTRONIC CALCULATOR BUSINESS**

CONTENTS

Features	1
Specifications.....	2
Function of Keys	3
Power Source Operations	4
Note on Operations	6
Operation Guide	7
Part One : General Operations	7
I. Set Decimal Position	7
II. Four Species and Percentage Operations	8
III. Overflow	12
IV. Operations of Clear Key	13
Part Two : Advanced Operations	16
I. Data Entry, Read and Clear All Operations	16
II. Memory Operations	19
III. Item Count, Summation, Averaging, Square Root and Sum of Squares Operations	21
IV. Delta Percentage Operations	22
V. Trend Line Operations	23
VI. Cost, Sell, Margin Operations	25
VII. Financial Operations	27

FEATURES:

- * 9-digit green tube display (8 digits mantissa with 1 digit sign)
- * Four separate memory registers
- * Accumulation operations
- * Entry, read and compute modes operations
- * Four arithmetic functions (+, -, \times , \div)
- * Percentage operation with automatic add-on discount
- * Item count, square root, summation, averaging and summation of squares operations ($\sqrt{}$, Σ , \bar{X})
- * Algebraic mode operations
- * Financial calculations (PV, FV, PMT, n, i, i/yr)
- * Sell, cost and margin calculations (SELL, COST, MARGIN)
- * Trend line calculations (TL, TREND)
- * Delta percentage calculations ($\Delta\%$)
- * Decimal position selection key (DS)
- * Chain and constant operations
- * Leading zero suppression
- * Automatic power-on clear
- * Dome keyboard feeling comfortable and avoiding double input
- * Overflow indicator
- * AC/DC/Rechargeable batteries available

SPECIFICATIONS:

Display:

9-digit green digitron

Keyboard:

20-key with dome keyboard

Switch:

ON-OFF: Power on-off switch

Capacity:

8 digits for data entry and results

Decimal Point:

When power on automatically set to 2 and may be set with DS key following a numerical number

Negative Indicator:

"-" Symbol in the leftmost display position

Overflow Indicator:

"□" Symbol in the leftmost display position. Indicating the results exceed the capacity of the calculator

Operation:

Addition, Subtraction, Multiplication, Division, Percentage with Add-on and Discount, Item Count, Summation, Averaging, Square Root, Sum of Squares, Change Sign, Decimal Position Selection, Data Entry Mode, Read Mode, Compute Mode Operations, Financial Operations, Cost, Sell Margin Operations, Trend Line Operations, Delta Percentage Operations, Four Separate Memory Registers, Accumulation Operations.

Ambient Temperature:

0°C - 40°C (32°F - 104°F)

Power Source:

DC with 4 pcs throw-away (UM-3 size) or rechargeable batteries.

AC with DC 6V 100ma output adaptor.

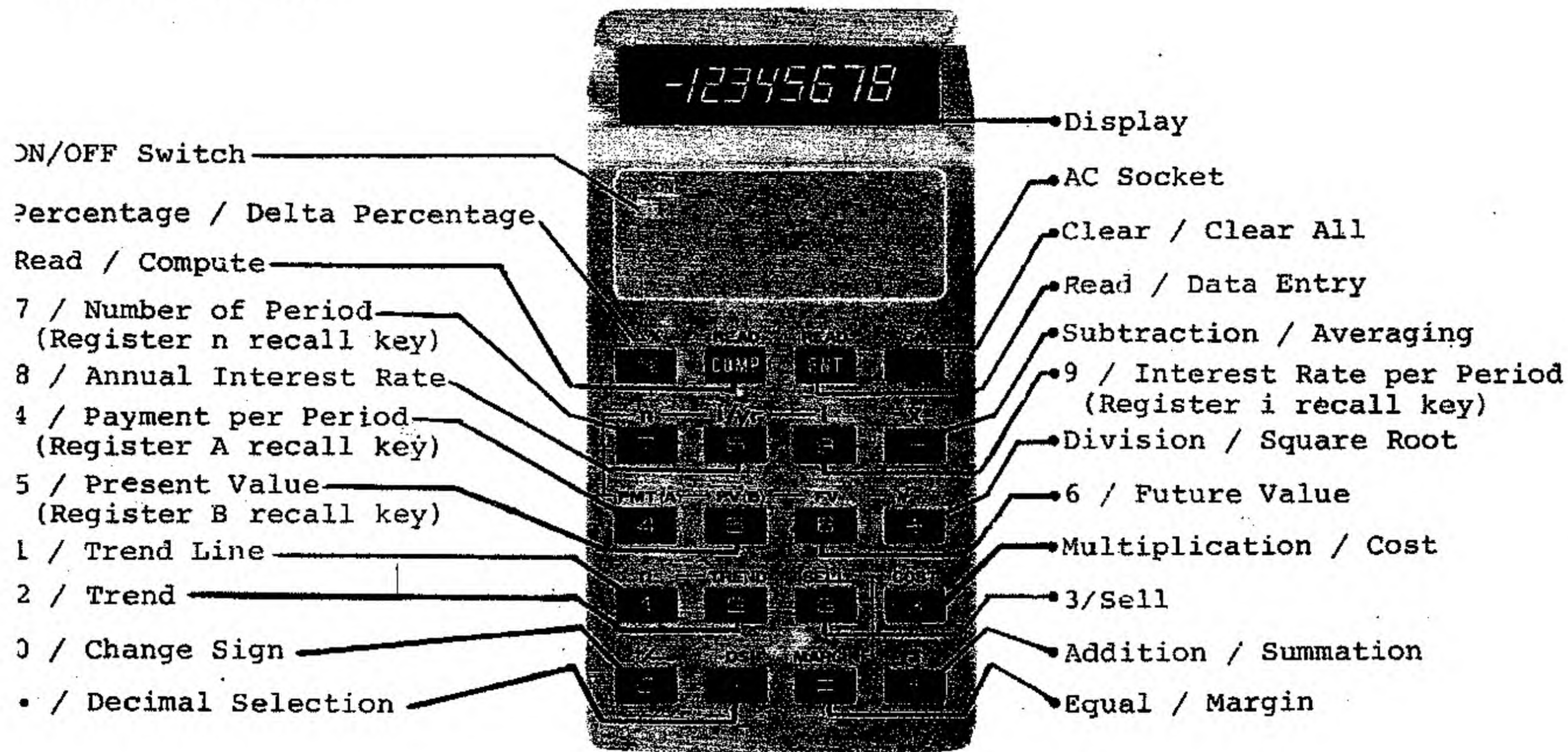
Power Consumption:

DC 0.3W

Dimension:

142mm (L) X 77mm (W) X 32.5mm (H)

Function of Keys



POWER SOURCE OPERATIONS:

I. BATTERY OPERATION:

Your calculator operates on 4 pcs. of UM-3 1.5 volts throw away dry batteries.

Installing Batteries:

At rear of cabinet, press down (on arrow) while sliding compartment cover downward to expose battery compartment. Place all batteries inside compartment and slide cover upward until it lock securely in place.

Caution:

- * When installing batteries the calculator switch should be in OFF position
- * When not in use always keep ON/OFF switch in OFF position to conserve battery power.
- * If the calculator is not to be used for long periods of time, be sure to remove the batteries.
- * If your calculator fails to operate. Replace a set of fresh batteries please!

II. BATTERY CHARGING:

This unit is rechargeable when using nickel cadmium batteries (optional equipment).

Charging Procedure:

- * Insert 4 pcs. of nickel cadmium batteries to replace the regular throw-away dry batteries into the battery compartment.
- * Insert the plug at one end of cord of AC adaptor into the AC adaptor jack located on the right side of the unit.
- * Insert the other plug of the AC adaptor into the house power outlet.
- * Takes 10 to 15 hours to charge the batteries, but do not charge longer than 15 hours.

Caution:

The batteries are charged whenever the AC adaptor is attached to the calculator and the plug to the household power source. When the power switch is set at "OFF" position the batteries are charged a little faster.

III AC OPERATION

Your calculator is equipped to operate on AC household power source as well as battery power.

To use this calculator on AC (electric) power you must attach an AC adaptor (optional equipment) to the DC 6V receptacle (jack) at side of the calculator. Since electric voltage varies in different countries you must be certain to secure the proper adaptor and plug for the area on which the calculator will be used.

This calculator is operated with output DC 6 volts 100 ma AC adaptor. Using wrong adaptor may damage your calculator.

When using an AC adaptor first attach to calculator jack and then attach plug to household power source and then slide on the power switch.

Caution:

- * If use throw-away dry batteries, you must remove away the batteries from the battery compartment before plug-in AC adaptor.
- * The rechargeable batteries are being charged whether the power switch is at ON or OFF position.

NOTE ON OPERATIONS

In this model there are two kinds of display format, but they are all the same in operation, application and result!

Example :

Operations	Display Format A	Display Format B
C	0.00	0.
1	1.	1.
+	1.00	1.
2	2.	2.
=	3.00	3.
C ENT DS 5	0.00000	0.
1 ÷ 3 =	0.33333	0.33333
1 ÷ 2 =	0.50000	0.5
ENT DS 7	0.5000000	0.5
ENT DS 8 (or 9)	0.5	0.5 (Floating)

The Operation Guide in this manual always deal with the display format A. Any difference, if any, will be described in detail in the operation examples.

OPERATION GUIDE

ART ONE : GENERAL OPERATIONS

I. Set Decimal Position

Decimal position may be set by depression of Numerical Key following **ENT** **DS** keys.

Example 1: What will the number 21.38 display with different decimal point setting?

Operations	Display	Description
Power on	0.00	
21.38	21.38	Data enter
ENT DS 0	21.	DS key make 5/4 round
ENT DS 1	21.4	Set to 1
ENT DS 5	21.38000	Set to 5
ENT DS 7	21.380000	Set to 7
ENT DS 8 (or 9)	21.38	Set to full floating

Example 2: What $22 \div 7 =$ will be displayed by different decimal point setting?

Operations	Display	Description
Power on	0.00	
22 \div 7 $=$	3.14	When power-on automatically set to 2
ENT DS 0	3.	Set to 0
ENT DS 5	3.14286	Set to 5
ENT DS 4	3.1429	DS operations make 5/4 round
ENT DS 8 (or 9)	3.1428571	Set to full floating

Note : In the following examples decimal point is always set to 2 if don't mention.

II. Four Species and Percentage Operations

Example 1: $(1 + 4 - 3 + 5 - 6) \times 8 \div 4 = 2$

Operations	Display	Description
C	0.00	Clear display register
1 $+$ 4 $-$ 3 $+$ 5 $-$ 6 \times 8 \div 4 $=$	2.00	Result

Example 2: Repeat Operations

$$1 + 2 + 2 + 2 - 3 - 3 = 1$$

Operations	Display	Description
[C]	0.00	
1 [+] 2 [=]	3.00	
[=]	5.00	Repeat plus 2
[=]	7.00	Repeat plus 2
[−] 3 [=]	4.00	Minus 3 from temporary result
[=]	1.00	Repeat minus 3

Example 3: Constant Operations

$$2 \times 3 = 6 \quad 5 \times 3 = 15 \quad 8 \times 3 = 24$$

Operations	Display	Description
[C]	0.00	
2 [X] 3 [=]	6.00	
5 [=]	15.00	Store 3 as constant
8 [=]	24.00	Store 3 as constant

Example 4: Constant Operations

$$12 \div 3 = 4 \quad 15 \div 3 = 5 \quad 18 \div 3 = 6 \dots$$

Operations	Display	Description
\boxed{C}	0.00	
12 $\boxed{\div}$ 3 $\boxed{=}$	4.00	
15 $\boxed{=}$	5.00	Store 3 as constant
18 $\boxed{=}$	6.00	Store 3 as constant

Example 5: $1500 \times 20\% = 300$

Operations	Display	Description
\boxed{C}	0.00	
1500 $\boxed{\times}$ 20	20.	Enter multiplier and multiland
$\boxed{\%}$	300.00	Terminate the equation and get the result

Example 6: $300 \div 1500 = 20\%$

Operations	Display	Description
\boxed{C}	0.00	
300 $\boxed{\div}$ 1500 $\boxed{\%}$	20.00	

Example 7: $120 \times 30\% = 36$ $360 \times 30\% = 108$

Operations	Display	Description
[C]	0.00	
120 [X] 30 [%]	36.00	
360 [%]	108.00	Store 30 as constant

Example 8: $36 \div 120 = 30\%$ $48 \div 120 = 40\%$

Operation	Display	Description
[C]	0.00	
36 [÷] 120 [%]	30.00	
48 [%]	40.00	Store 120 as constant

Example 9: Add-on $1500 \times (1 + 20\%) = 1800$

Operations	Display	Description
[C]	0.00	
1500 [F]	1500.00	
20 [%]	300.00	Store 1500 as a constant and get $1500 \times 20\% = 300$
[=]	1800.00	

Example 10: Discount $1500 \times (1 - 20\%) = 1200$

Operations	Display	Description
C	0.00	
1500 =	1500.00	
20 %	300.00	
=	1200.00	

III. Overflow

Example 1: Divided by zero

Operations	Display	Description
C	0.00	
3 ÷ 0 =	0.00	Indicate overflow and decimal set to 2 (as power on)
C	0.00	Reset overflow condition
ENT DS 5	0.00000	set to 5
3 ÷ 0 =	0.00000	

Example 2: 1111111 X 1111111 = 1234567654321

Operations	Display	Description
\boxed{C}	0.00	
1111111 $\boxed{\times}$ 1111111 $\boxed{=}$	$\square 12345.68$	$\square 12345.68 \times 10^8$ Exceeding capacity of this calculator, it display an overflow symbol, and the result is 5/4 rounded with 10^8 optional

V. Operations of Clear Key

Example 1: $2 + 3 + 64 = 9$

Operations	Display	Description
\boxed{C}	0.00	
2 $\boxed{+}$ 3 $\boxed{+}$	5.00	
6 \boxed{C}	0.00	Correct wrong input
.4 $\boxed{=}$	9.00	

Note : Single depression of \boxed{C} , clear displayed number but retain the stored constant and the calculating mode.

Example 2: Repeat example 1, but depress \boxed{C} two times after 6.

Operations	Display	Description
\boxed{C}	0.00	
2 $\boxed{+}$ 3 $\boxed{+}$	5.00	
6 \boxed{C} \boxed{C}	0.00	
4 $\boxed{=}$	4.00	

Note : Double depression of \boxed{C} clear displayed number and reset all calculating modes.

Example 3: Clear Overflow Condition

Operations	Display	Description
\boxed{C}	0.00	
55555555 $\boxed{+}$ 66666666 $\boxed{=}$	$\square 1.22$	1.22×10^8 (overflow)
\boxed{C}	1.22	Clear overflow condition
11111111 $\boxed{=}$	77777777	Previous data entry retained

Note : Single depression of \boxed{C} key clear overflow condition but retain the displayed number, previous enter data and calculating mode.
Double depression of \boxed{C} key reset all modes.

Example 4:

Operations	Display	Description
[C]	0.00	
[ENT] [DS] 4	0.0000	Set to 4
1 [÷] 3 [=]	0.3333	
[C]	0.0000	
1 [÷] 3 [=]	0.3333	Retain [DS] = 4
[C] [C]	0.0000	
1 [÷] 3 [=]	0.3333	Retain [DS] = 4

Note : Depression of **[C]** key leave decimal point unaffected.

* Clearing of memory registers is explained in PART TWO.

PART TWO : ADVANCED OPERATIONS

This model has several special features:

Four separate memory registers (A. B. n. i), "Data Entry Mode" "Compute Mode" "Read Mode" Operations, Recall and Clear all registers operations.

(a) Data Entry Mode

This mode is initiated by depression **ENT** key. Data may enter to any registers after **ENT** key.

(b) Compute Mode

This mode is initiated by depression **COMP** key.

(c) Read Mode

Sequences **COMP** **READ** and **ENT** **READ** all initiated this mode.

(d) Recall the Contents of the registers

The contents of four registers (A. B. n. i) may be recalled by depression **PMT**(A), **PV**(B), **n**, **i** key respectively after read mode is initiated.

(e) Clear all registers

Sequence **COMP** **CA** clear all registers and reset all modes, but decimal selection is unaffected.

I. Data Entry, Read and Clear All Operations

Operations	Display	Description
C	0.00	
100 ENT PV (B)	100.00	100 enter to register B
50 ENT PMT (A)	50.00	50 enter to register A
10 ENT n	10.00	10 enter to register n
5 ENT i	5.00	5 enter to register i

Operations	Display	Description
ENT DS 5	5.00000	Decimal point set to 5
1 ÷ 3 =	0.33333	
C	0.00000	Clear display register
1 ÷ 3 =	0.33333	
C C	0.00000	
1 ÷ 3 =	0.33333	Leave decimal point unaffected
ENT READ PV (B)	100.00000	Depressions of C key leave four register A. B. n. i unaffected!
ENT READ PMT (A)	50.00000	Recall A
ENT READ n	10.00000	Recall n
ENT READ i	5.00000	Recall i
COMP CA	0.00000	Clear all registers
ENT READ PV	0.00000	Check above comment
ENT READ PMT	0.00000	"
ENT READ n	0.00000	"
ENT READ i	0.00000	"
1 ÷ 3 =	0.33333	Decimal point is unaffected

Note : The capacity of A, B, n, i registers are ± 99999999 , ± 99999999 , $+9999$, ± 99999999 respectively.

Operations	Display	Description
[COMP] [CA]	0.00	
99999999 [ENT] [PMT] (A)	99999999.	Data enter
[ENT] [PV] (B)	99999999.	"
[ENT] [n]	99999999.	
[ENT] [i]	99999999.	
[ENT] [READ] [PMT] (A)	99999999.	Recall
[ENT] [READ] [PV] (B)	99999999.	"
[ENT] [READ] [n]	9999.	"
[ENT] [READ] [i]	99999999.	"
[ENT] [+/-]	-99999999.	Change sign
[ENT] [PMT] (A)	-99999999.	
[ENT] [READ] [PMT] (A)	-99999999	A, B, i can be stored positive and negative number
1234.56 [ENT] [+/-]	-1234.56	
[ENT] [n]	-1234.56	
[ENT] [READ] [n]	3456.00	Register n can be stored positive integer only. To enter any number with decimal point or larger than 9999 is meaningless

II. Memory Operations

Example 1: $(5 + 3) \times (9 - 4) = 40$

Operations	Display	Description
COMP CA	0.00	
5 + 3 =	8.00	
ENT PMT(A)	8.00	Store 8 in register A
9 - 4 =	5.00	
X ENT READ PMT(A) =	40.00	Recall register A

Example 2: $\frac{(2 \times 3) + (4 \times 6)}{(9 \times 8) - (6 \times 7)} = 1.$

Operations	Display	Description
COMP CA	0.00	
9 X 8 =	72.00	
ENT PMT(A)	72.00	Store 72 in register A
6 X 7 = ENT +/-	-42.00	Change sign
+ ENT READ PMT(A) =	30.00	Recall 72 from register A and add to -42

Operations	Display	Description
ENT PMT (A)	30.00	30 replace 72 in register A
2 X 3 =	6.00	
ENT PV (B)	6.00	Store 6 in register B
4 X 6 =	24.00	
+ ENT READ PV (B) =	30.00	
÷ ENT READ PMT (A) =	1.00	

Note : If a more complicated problem is solved temporary results may be stored in four registers respectively.

Example 3: $(2 \times 3) + (4 \times 5) + (6 \times 7) = 68$ (Accumulation Operations)

Operations	Display	Description
COMP CA	0.00	
2 X 3 =	6.00	
ENT Σ	1.00	6 store in register A, but display item number
4 X 5 =	20.00	
ENT Σ	2.00	
6 X 7 =	42.00	
ENT Σ	3.00	
ENT READ PMT (A)	68.00	

VIII. Item Count, Summation, Averaging, Square Root and Sum of Squares Operations

Example : 2 + 3 + 4 + 5 + 6 Find

(a) Item (b) Sum (c) Average (d) Sum of Squares

(e) Square Root of (d)

Operations	Display	Description
COMP CA	0.00	
2 ENT Σ	1.00	Number 2 enter register A. Its square enter register B, register "n" increase by 1, register "i" leave unaffected. Display show item number.
ENT READ PMT (A)	2.00	Check register A only
ENT READ PV (B)	4.00	Check register B only
ENT READ n	1.00	Check register n only
ENT READ i	0.00	Check register i only
3 ENT Σ	2.00	Item number increase to 2 from 1.
4 ENT Σ	3.00	
5 ENT Σ	4.00	
6 ENT Σ	5.00	
ENT READ PMT (A)	20.00	Recall the accumulating storing in register A

Operations	Display	Description
COMP X̄	4.00	Average
COMP READ PV(B)	90.00	Recall sum of squares storing in register B
COMP √	9.49	Square root of (d)

IV. Delta Percentage Operations

Programmed Formula $\Delta\% = \frac{\text{Current} - \text{Last}}{\text{Last}} \times 100$

Example : The net profits of a company in last three years are:

1971	1972	1973	
2.75	3.03	2.96	(in millions)

Find the increase percentage (respect to latter year)?

Operations	Display	Description
COMP CA	0.00	
2.75 ENT Δ%	2.75	Data enter to register A
3.03 COMP Δ%	10.18	(1972 to 1971) Now register A content is replaced by 3.03
ENT READ PMT(A)	3.03	Check above comment only (optional)
2.96 COMP Δ%	-2.31	1973 to 1972

V. Trend Line Operations

In this mode use the least square technique. So it's not only applied to linear equations but also to random distributed data (as Example 2).

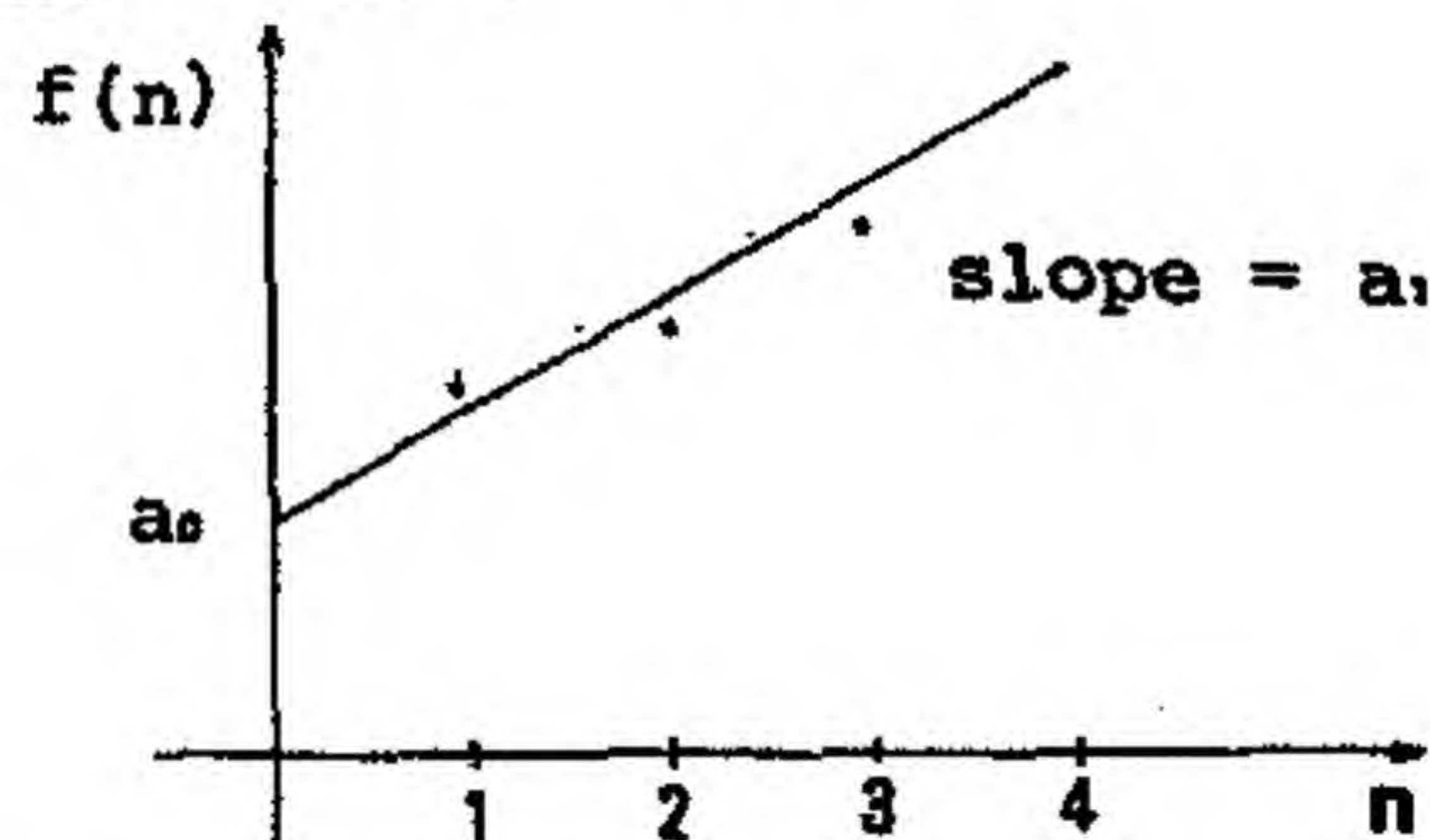
The line is defined to be $F(n) = a_0 + a_1 \cdot n$

When completion of data entry, the operation is followed by key Sequence:

COMP **TL** → a_0 (interception)

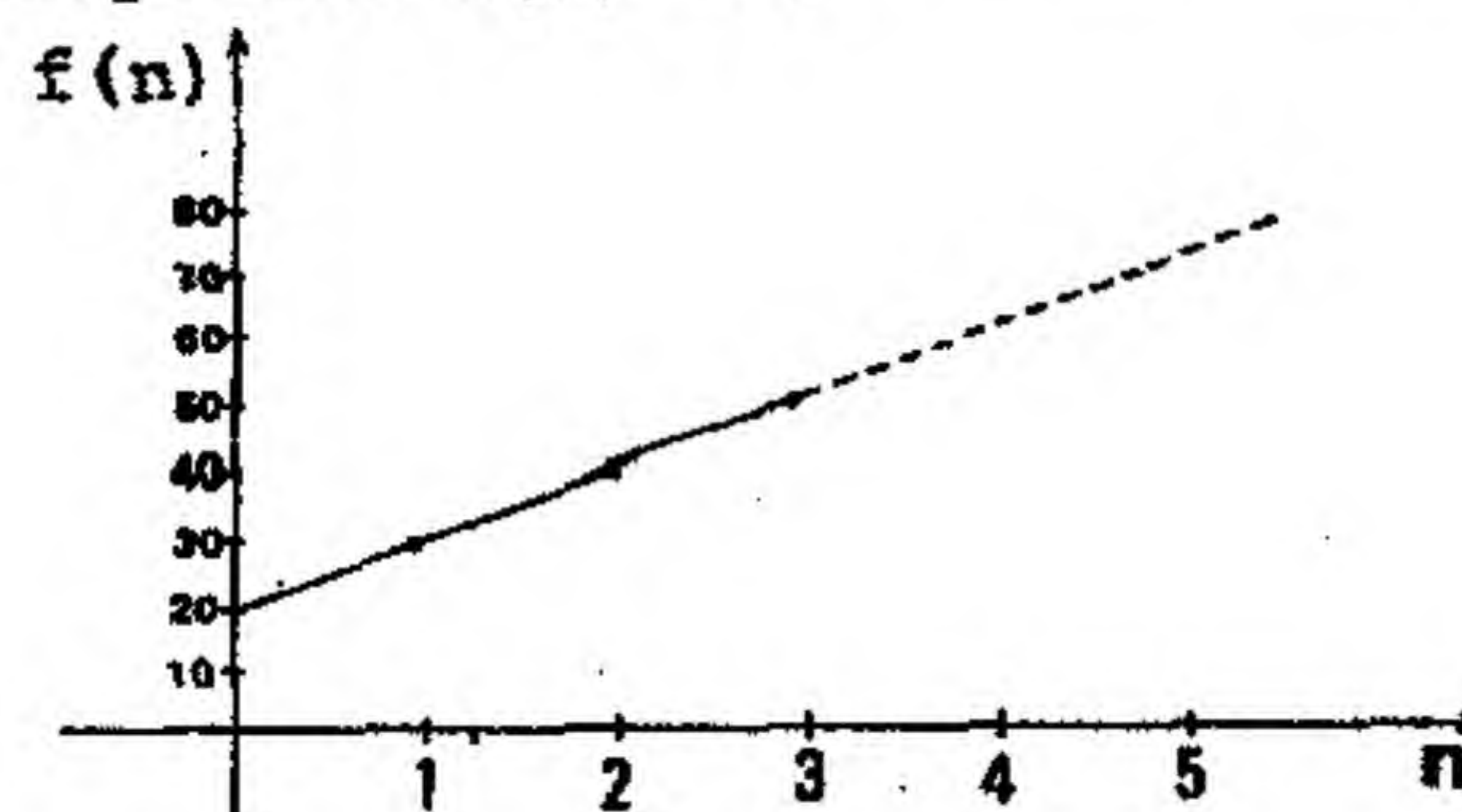
ENT **READ** **PMT** (A) → a_1 (slope)

n **ENT** **n** **COMP** **TREND** → $f(n)$



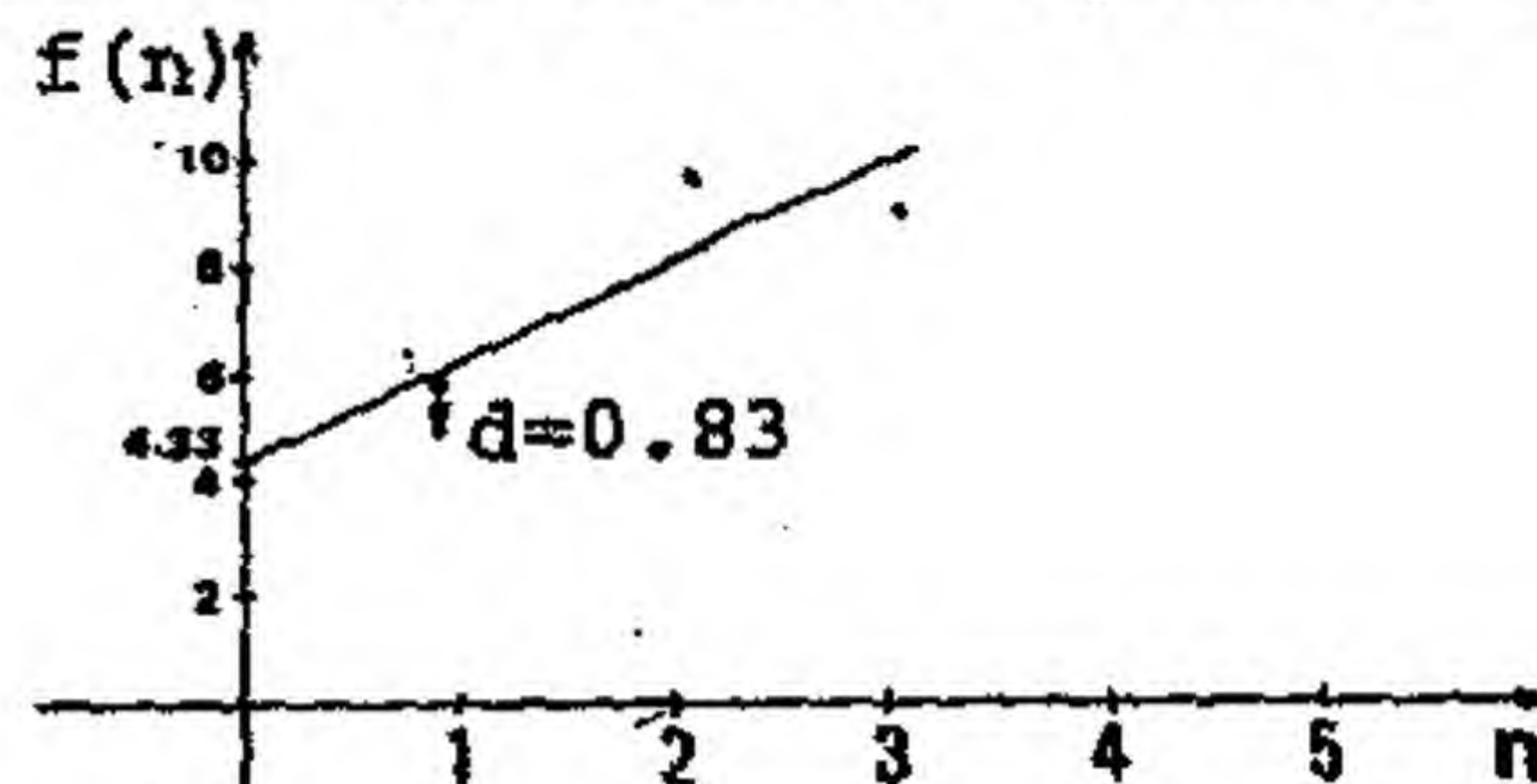
All data points must be equally spaced and begin with point number one!

Example 1: If $f(1) = 30$, $f(2) = 40$, $f(3) = 50$ Find the interception slope and $f(5) = ?$



Operations	Display	Description
COMP CA	0.00	
30 ENT TREND	1.00	f(1) enter TREND but display show the sequence
40 ENT TREND	2.00	
50 ENT TREND	3.00	
COMP TL	20.00	Get interception and storing in register B. And the slope is stored in register A.
ENT READ PMT (A)	10.00	Slope
5 ENT n	5.00	To compute f(5)
COMP TREND	70.00	f(5) = 70.

Example 2: $f(1) = 5$ $f(2) = 9$ $f(3) = 8$ find the interception and slop of the approximate (linear) equation f' ? And check deviation between $f(1) = 5$ and the approximate equation $f'(1)$!



Operations	Display	Description
COMP CA	0.00	
5 ENT TREND	1.00	
9 ENT TREND	2.00	
8 ENT TREND	3.00	
COMP TL	4.33	Interception
ENT READ PMT (A)	1.50	$f'(n) = 4.33 + 1.50n$
1 ENT n	1.00	In order to get $f'(1)$
COMP TREND	5.83	$f'(1) = 5.83$
- 5 =	0.83	Deviation

Note : Because use the approximation technique so the more data enter to **TREND** the more accuracy will result.

VI. Cost, Sell, Margin Operations

Operations	Programmed formula	Example
COMP MARGIN	$\text{Margin} = \frac{\text{Sell} - \text{Cost}}{\text{Sell}} \times 100$	1
COMP SELL	$\text{Sell} = \frac{\text{Cost}}{1 - \frac{\text{Margin}}{100}}$	2
COMP COST	$\text{Cost} = (1 - \frac{\text{Margin}}{100}) \text{ sell}$	3

Example 1: The cost of a calculator is \$65. Find the margin if it's sold at \$78?

Operations	Display	Description
[COMP] [CA]	0.00	
65 [ENT] [COST]	65.00	Enter Cost
78 [ENT] [SELL]	78.00	Enter Sell Price
[COMP] [MARGIN]	16.67	

Example 2: In above example if want to get 20% Margin. How much a calculator should be sold?

Operations	Display	Description
[COMP] [CA]	0.00	
65 [ENT] [COST]	65.00	
20 [ENT] [MARGIN]	20.00	
[COMP] [SELL]	81.25	\$81.25

Example 3: A coat is retailed for \$16.4. What can he afford to pay for it if a 35% margin is required?

Operations	Display	Description
[COMP] [CA]	0.00	
16.4 [ENT] [SELL]	16.40	
35 [ENT] [MARGIN]	35.00	
[COMP] [COST]	10.66	

VII. Financial Operations

PV : Present Value i : Interest Rate per Period
 FV : Future Value i/yr : Interest Rate per year
 n : Period PMT : Payment per period

* i : May be used as interest (see Example 11)

Operations	Programmed Formula	Example
COMP FV	a) $FV = PV(1 + i)^n$ (known PV) b) $FV = PMT \frac{(1 + i)^n - 1}{i}$ (known PMT)	1 5
COMP PV	a) $PV = \frac{FV}{(1 + i)^n}$ (known FV) b) $PV = PMT \frac{(1 + i)^n - 1}{i(1 + i)^n}$ (known PMT)	6 7
COMP PMT	a) $PMT = \frac{PV i (1 + i)^n}{(1 + i)^n - 1}$ (known PV) b) $PMT = \frac{FV i}{(1 + i)^n - 1}$ (known FV)	2,4 3
COMP n		4,8,9,10
COMP i (interest)		11

Example 1: Invest \$1,000 to be compounded annually at a rate of 6% for 7 years. Find the future value?

Operations	Display	Description
COMP CA	0.00	
1000 ENT PV	1000.00	Enter present value to register B
6 ENT i	6.00	Enter interest rate to register i
7 ENT n	7.00	Enter number of period to register n
COMP FV	1503.63	Find future value. Using $FV = PV(1 + i)^n$

Example 2: Borrow \$5,000 at 8% per year for 6 years. How much the monthly payment is?

Operations	Display	Description
COMP CA	0.00	
5000 ENT PV	5000.00	
8 ENT i/yr	8.00	To compute monthly payment, change interest rate per year to interest per month by i/yr key
6 X 12 = ENT n	72.00	6 year = 72 months
COMP PMT	87.67	

Example 3: Want \$15,000 in 9 years from now. What is monthly investment assuming interest 5% per year compounded monthly?

Operations	Display	Description
[COMP] [CA]	0.00	
15000 [ENT] [FV]	15000.00	Enter future value
5 [ENT] [i/yr]	5.00	Change to interest per month
9 [X] 12 [=] [ENT] [n]	108.00	9 years = 108 months
[COMP] [PMT]	110.26	

Example 4: Borrow 3,600 at 8% per year, repay \$200 per month. How many months required to repay loan? How much is the last payment?

Operations	Display	Description
[COMP] [CA]	0.00	
3600 [ENT] [PV]	3600.00	Enter present value
8 [ENT] [i/yr]	8.00	Change to interest per month
200 [ENT] [PMT]	200.00	Enter payment per month
[COMP] [n]	20.00	It takes 20 months to repay the loan.
[ENT] [READ] [PMT] [+]	200.00	Recall payment per month
[ENT] [READ] [PV]	-152.11	In the end of 20th month we pay 152.11 more than we due to.
[=]	47.89	The last payment

Example 5: Invest \$1500 per month at 5% annual interest. What will be the value at the end of 3 years?

Operations	Display	Description
[COMP] [CA]	0.00	
1500 [ENT] [PMT]	1500.00	
5 [ENT] [i/yr]	5.00	
3 [X] 12 [=] [ENT] [n]	36.00	3 years = 36 months
[COMP] [FV]	58130.25	

Example 6: Want \$5000 in 3 years. What is the present investment if the money is to be compounded monthly at 10% per year?

Operations	Display	Description
[COMP] [CA]	0.00	
5000 [ENT] [FV]	5000.00	
10 [ENT] [i/yr]	10.00	
3 [X] 12 [=] [ENT] [n]	36.00	
[COMP] [PV]	3708.71	

Example 7: What is the equivalent present value of \$1000 invested per month for 3 years at 6% per year compounded monthly ?

Operations	Display	Description
[COMP] [CA]	0.00	
1000 [ENT] [PMT]	1000.00	
6 [ENT] [i/yr]	6.00	
3 [X] 12 [=] [ENT] [n]	36.00	
[COMP] [PV]	32870.99	

Example 8: Borrow \$1000 at 10% per month. How many months are required to repay loan if repay \$50 monthly?

Operations	Display	Description
[COMP] [CA]	0.00	
1000 [ENT] [PV]	1000.00	
10 [ENT] [i]	10.00	
50 [ENT] [PMT]	50.00	
[COMP] [n]	129.00	Overflow

Note : If to compute n with an inadequate payment, display will show overflow symbol and the number of periods required to overflow register B.

Example 9: Borrow \$3,000 at rate 8% year. How many months are required to repay loan!

Operations	Display	Description
[COMP] [CA]	0.00	
3000 [ENT] [PV]	3000.00	
8 [ENT] [i/yr]	8.00	
[COMP] [n]	0.00	Overflow

Note : If to compute n with zero payment will cause overflow in Display Format A.
and display will go blank in Display Format B.
In the latter format, please turn power off and on again!

Example 10: Repeat Example 9 with
PMT = \$-200

Operations	Display	Description
[COMP] [CA]	0.00	
3000 [ENT] [PV]	3000.00	
8 [ENT] [i/yr]	8.00	
200 [ENT] [+/-] [ENT] [PMT]	-200.00	
[COMP] [n]	Go Blank!	

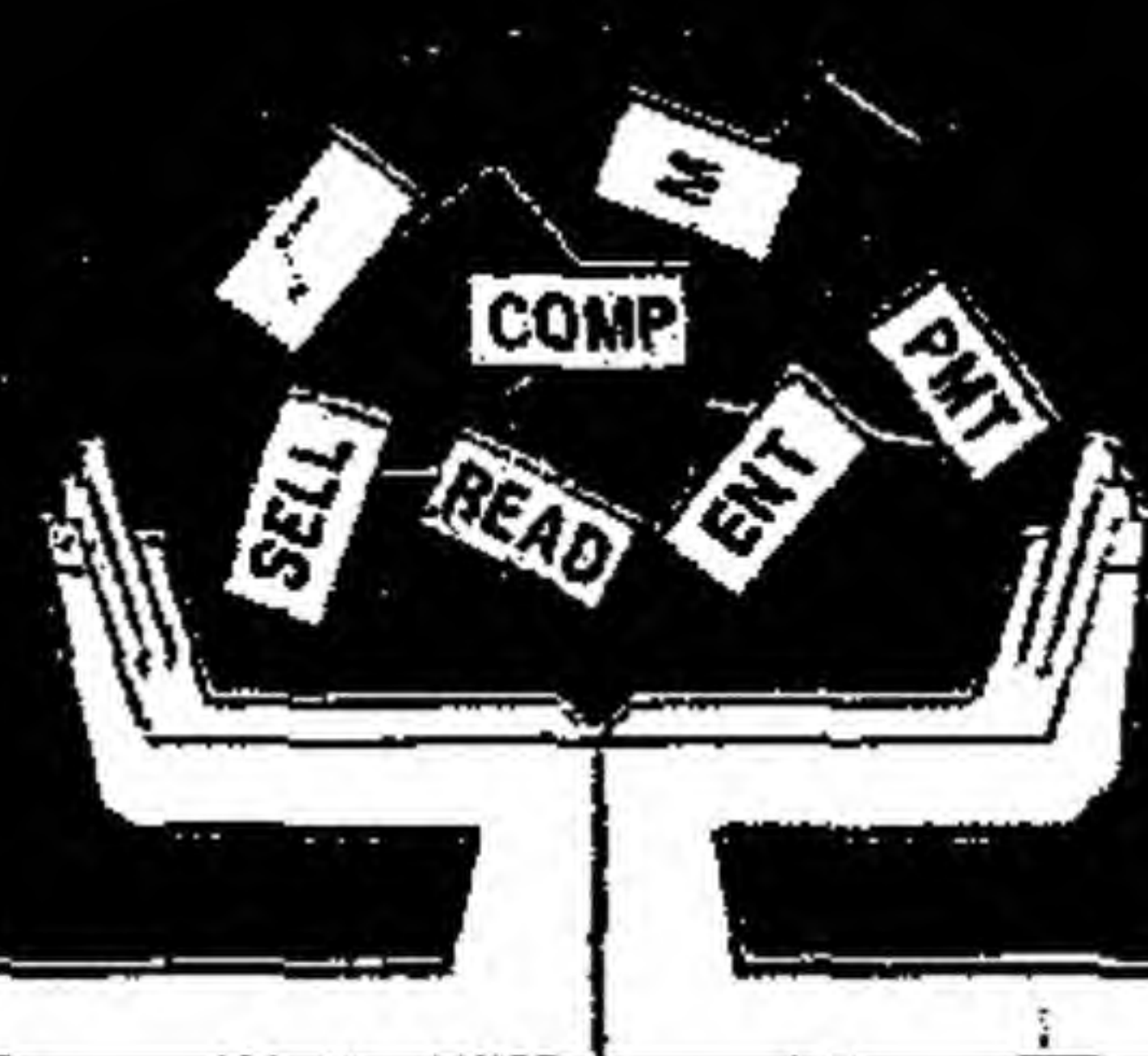
Note : If to compute n with negative payment, display will go blank in both Display Formats.
In Format A, depress [C] key and go ahead!
In Format B, turn power off and on again!

Example 11: Borrow \$5000.00 at 9% interest over 3 years.

- (1) What are monthly payment ?
- (2) What are interest paid each year?
- (3) What are interest total paid?

Operations	Display	Description
[COMP] [CA]	0.00	
36 [ENT] [n]	36.00	
5000 [ENT] [PV]	5000.00	
9 [ENT] [i/yr]	9.00	
[COMP] [PMT]	159.00	Monthly payment
12 [ENT] [n]	12.00	
[COMP] [i]	388.33	Interest paid over 1st year
[COMP] [i]	245.78	Interest paid over 2nd year
[COMP] [i]	89.85	Interest paid over 3rd year
5000 [ENT] [PV]	5000.00	
36 [ENT] [n]	36.00	
[COMP] [i]	723.95	Interest total paid

QUALITY ELECTRONIC CALCULATOR



FINANCIAL CALCULATOR